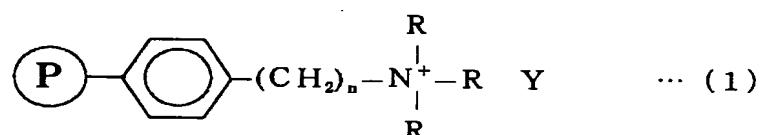


ABSTRACT

A process for producing a radioactive fluorine compound which comprises a step in which $[^{18}\text{O}]$ water containing $[^{18}\text{F}]$ fluoride ions is introduced into a column packed with an ion-exchange resin to collect the $[^{18}\text{F}]$ fluoride ions and a step in which a substrate is reacted with the $[^{18}\text{F}]$ fluoride ions collected, characterized in that the ion-exchange resin is a resin represented by the following general formula (1):



(wherein n is an integer of 1 to 10; R represents a linear or branched, C₁₋₈ monovalent hydrocarbon group; P represents a styrene-based copolymer; and Y represents an anion).